

**CLAIMS**

1. A residential gateway system comprising:
  - means (18, 20, 28, 42) for receiving broadcast video signals from a variety of sources;
  - means (14) for displaying video signals;
  - 5 a residential gateway (10) coupled to said receiving means (18, 20, 28, 42) for selectively displaying video signals on said display means (14);
  - a handheld controller (50) having a display screen (52), said handheld controller (50) being coupled to said residential gateway (10) via a network channel (48) for communicating with and controlling said residential gateway (10),
  - 10 wherein said residential gateway (10) comprises:
    - means (44, 66) for storing attributes of said handheld controller (50) and of said network channel (48); and
    - transcoding means (68) for transcoding video signals, in response to said stored attributes, for transmission on said network channel (48) to said handheld controller (50), said
    - 15 transcoded video signals being capable of being handled by said network channel (48), and of being displayed on the display screen (52) of said handheld controller (50) without further processing in said handheld controller (50).
2. The residential gateway system as claimed in claim 1, wherein said attributes of said network channel (48) and said handheld controller (50) comprise the bandwidth capabilities of the network channel (48) and the display screen (52), including the resolution and refresh rate of the display screen (52), screen size, processing power, and battery life, and
- 5 the transcoding means (68) transcodes the video signals to conform with at least the bandwidth of the display screen (52).
3. The residential gateway system as claimed in claim 2, wherein said residential gateway system further comprises means (22, 30, 32, 41) for storing video signals and for playing back stored video signals, and said transcoding means (68) is capable of transcoding stored video signals by performing a video content analysis.

4. The residential gateway system as claimed in claim 3, wherein said video content analysis comprises, alternatively, providing a series of still images and a text summarization of the stored video signals, and providing a series of relevant video clips and audio clips.
5. The residential gateway system as claimed in claim 3, wherein said residential gateway system further comprises means (18, 20, 28, 42) for receiving news, weather, traffic and other live information, and said transcoding means (68) is capable of transcoding said live information in the form of a text streamer for transmission to said handheld controller.
6. The residential gateway system as claimed in claim 4, wherein said handheld controller (50) further comprises a memory (60) for storing profile information concerning a plurality of users of said handheld controller (50), said profile information including guidelines of which transcoding process is desired by the selected user.
7. The residential gateway system as claimed in claim 5, wherein said handheld controller (50) further comprises a memory (60) for storing profile information concerning a plurality of users of said handheld controller (50), said profile information including guidelines of which transcoding process is desired by the selected user, and wherein said residential gateway (10) comprises means for autonomously providing said transcoded text streamer to said handheld controller (50) based on a priority setting in said user profile.
8. The residential gateway system as claimed in claim 6, wherein said profile information includes user priorities for topics, time of day, location, available time for watching previews and full-length videos, said residential gateway (10) using the attributes of the network channel (48) and the handheld controller (50), as well as attributes of the video signals, in a weighting scheme along with said user priorities for determining the transcoding process to be performed by the transcoding means (68), wherein said user priorities are highest weighted.
9. The residential gateway system as claimed in claim 3, wherein the residential gateway (10) provides audio-visual summaries of the video signals stored on the video signal storing and playback means (22, 30, 32, 41), said audio-visual summaries including images

representing scenes in the video signals.

10. The residential gateway system as claimed in claim 3, wherein the residential gateway (10) provides a table of contents for each of the programs represented by video signals stored by the video signal recording and playback means (22, 30, 32, 41), said transcoding means (68) transcoding said table of contents for said handheld controller (50), said handheld controller (50) displaying said table of contents, and said handheld controller (50) having means (56) for selectively deleting selected portions of a selected one of the programs thereby forming an edited program, said edited program being subsequently displayed on said displaying means (14).
11. The residential gateway system as claimed in claim 10, wherein said table of contents is stored with the video signals of each of the programs.
12. The residential gateway system as claimed in claim 10, wherein said table of contents is obtained from the Internet by the residential gateway system.
13. The residential gateway system as claimed in claim 10, wherein said handheld controller (50) comprises lock-out means (56) for locking out selected programs or portions of programs from being viewed on the displaying means (14) or on the handheld controller (50).